FIELD TRIPS OF THE CLUB

Trip to the American Museum of Natural History on March 4, 1939

Thirty-two members and friends of the Torrey Botanical Club arrived Saturday morning at ten o'clock for a visit to the laboratories of the American Museum of Natural History.

In the Paleontological laboratory they observed some partial skeletons of prehistoric animals in situ, or partially set up for exhibit. The most recent acquisitions there, were the casts of footprints of a dinosaur which were discovered by Mr. Roland T. Bird along a stream in Texas this last December. These were made by the largest animal (yet discovered) that has ever lived. When comparing it with other large creatures even the sulphur-bottom whale, that has held the record for size up to the time these tracks were discovered, has been put into the "small in comparison" class. From these footprints of the largest of creatures we went to the laboratory where the minute creatures take on visible size. Here the world-famous glass blower, Herman O. Mueller, demonstrated how, as by magic plus a blow torch and a puff of breath, tiny tubes of glass can be fashioned into likenesses of intricately formed animals of the sea. Here too, Dr. Childs showed the group some of the objects that are being prepared in wax for a miniature habitat group, portraying the life of the pearl diver. This group is to form a portion of the Museum exhibit at the World's Fair. From this very modern activity we were again whisked back into the "millions of years ago, before the time of man" by Dr. Barnum Brown's fascinating discussion of the new Museum halls showing dinosaurs of different eras, many of these dinosaur remains being those found by Dr. Brown on his recent expeditions in western U. S.

A hurried trip to the laboratory where the botanical reproductions are made for the Museum habitat groups was made and the trip was concluded with luncheon in the Museum dining room where we are glad to state that items on the menu were not in the millions-of-years-ago class.

Farida A. Wiley

"SUGAR BUSH" OUTING TO MOHONK LAKE

MARCH 10–12, 1939

This trip was planned to give an opportunity to see a little known but economically important plant industry—the making of maple syrup and sugar. On the practical side, we saw something of the general procedure involved in obtaining and processing maple sap. Fundamentally, this is the same regardless of the equipment used. However, the leader's main objective was to try to give the members an opportunity to sense for themselves the uncanny fascination of doing it when old-fashioned methods are used.

Those arriving Friday evening were able to enjoy skating on the lake with flood lights and music. The balance of the group (total of 27) arrived Saturday morning in time to join in the coasting and tobogganing—the whole mountain being covered with a hard crust.

After dinner it started to snow gently just as we set out. The route led through Glen Anna where the snow silently sifting through the branches of the great hemlocks left an unforgettable impression. On arrival at the "sugar bush," which term might be translated as orchard when applied to a grove of sugar maple trees, we found two of the school boys in full charge.

This particular bush covers about an acre on a steep slope with a northwest exposure. About 30 trees (over 12 inches in diameter) had been tapped. The "tapping" is done with a brace and bit and consists of boring a hole about one-half inch in diameter into the tree an inch and a half. The hole is usually about four feet from the ground.

Into this hole is lightly driven a "spile." This may consist of a neatly formed piece of sheet metal with various patented features or a piece of green sumach which has been transformed by a few minutes of jack-knife work and a red hot wire to remove the pith. In either case a wire hook is usually provided on which to hang a pail, which is usually a tinned or galvanized one with about 12 quart capacity. In olden times keelers (wooden buckets) were used.

The process of converting maple sap to syrup is merely a matter of boiling away water until the right proportion of solids and sugar are left in solution. Maple sugar is made by carrying the process further.

In the boiling is the greatest divergence between oldtime and modern methods. The commercial evaporator is a complicated system of shallow flat pans and pipes set on a brick fire box. It turns out clear syrup after a short time of boiling with a minimum of labor. However, here at the Mohonk bush, a great round bottomed iron kettle holding 48 gallons was suspended by heavy chains from a tripod of solid oak poles.

The final boiling to syrup is accomplished in a small kettle, the point of removal being judged with either a thermometer or by its consistency as it drops from a spoon. The weight of a gallon of syrup is fixed by law—at not less than 11 pounds. In an average season a tree 12 inches in diameter may yield 30 gallons of sap per year through one hole. The sweetness of sap varies during the season (the first run is considered the highest quality) and from year to year, but many experiments have shown that it takes between 30 and 50 gallons of sap to make a standard weight gallon of syrup or 7 pounds of sugar.

From the sugar bush we walked across snow covered fields to the old log cabin whose history dates back to Revolutionary War times. Here in the great open fire place the leader prepared supper for us complete with fried potatoes flipped in the pan, Mohonk farm steaks broiled over charcoal and oldfashioned boiled coffee. The flickering candles cast strange shadows on the old log walls.

After supper we gathered round the crackling fire and sang old time songs to the notes of a guitar. The jingle of sleigh bells announced the arrivals of the straw filled sleighs which were to take us back to the House.

Sunday morning was spent in exploring the seven inch snowfall—some on skiis and toboggans, others merely tramping through it to enjoy its beauty.

DANIEL SMILEY, JR.

TRIP OF APRIL 29 TO GRASSY SPRAIN RIDGE, YONKERS

Sixteen members of the club met at the arboretum of the Boyce Thompson Institute at Grassy Sprain Ridge.

A short time was spent examining the trees and shrubs growing in the nursery. Then the party went into the woods along the crest of the ridge to study the wild flowers. Some 25 species of early spring flowers were found. In a marshy brook the golden saxifrage, *Chrysosplenium americanum*, was flowering, the reddish disk and bright orange stamens above the green sepals giving a pleasing bit of color when closely observed. A patch of trailing arbutus was found among the rocks, covered with dainty blossoms that the members of the group bent over to get the delightful perfume. The plants had probably been set out in recent years, but in a location where arbutus grew naturally in earlier days. It looked as if it had always been there.

The woods have been kept in their original state with the native flowers and ferns undisturbed. Only in open places was there signs of the setting out of some local plants that had disappeared from the region, and of others, such as the holly, *Ilex opaca*, that never had grown there.

Many ferns were noted—the three Osmundas, Christmas, marginal-shield, marsh, sensitive, lady, and New York, all with fronds only partly uncurled. The rattlesnake fern, *Botrychium virginianum*, was found to be rather common in places on the hillside, the sterile fronds in varying stages of development, none of the fertile as yet expanded. Besides the flowers and trees some members of the group enjoyed observing birds that had recently arrived from the south.

George T. Hastings